DOCUMENT RESUME

ED 411 252 TM 027 184

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TITLE The Neglect Scale.
SPONS AGENCY New Hampshire Univ., Durham. Family Research Lab.; National Inst. of Mental Health (DHHS), Bethesda, MD.
PUB DATE 1997-03-00
NOTE 23p.; Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL, March 24-28, 1997) and the International Conference on Family Violence Research (4th, Durham, NH, July 23, 1995).
CONTRACT T32MH15161
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150) -- Tests/Questionnaires (160)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adolescents; Adults; Child Abuse; *Child Neglect; *Childhood Needs; *College Students; Emotional Abuse; Higher Education; Needs Assessment; *Psychometrics; Test Construction; Test Reliability; Test Use; Test Validity

ABSTRACT

The Neglect Scale was designed as a measure of neglect of children's basic needs by caretakers. It measures neglect of physical, emotional, supervisory, and cognitive needs. The version of the Neglect Scale described in this report can be used in interview or questionnaire format with adolescents to describe their current situations or with adults to describe neglect when they were growing up. Preliminary psychometric data based on a college student sample (340 to 359 students) is presented for the full 20-item scale, including the 4 subscales, and for 8-item and 4-item short forms. These preliminary data indicate that the Neglect Scale has a high level of internal consistency reliability. Evidence is also presented in support of construct validity. Limitations of the Neglect Scale are discussed, and modifications that enable the scale to be used with a variety of populations are described. An attachment presents the scale. (SLD)

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THE NEGLECT SCALE

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This paper is prepared for the Annual Meeting of the American Educational Research Association in Chicago, IL

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PRELIMINARY PR1

THE NEGLECT SCALE [1]

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Abstract

Standardized and easily administered measures are needed to facilitate research on neglect of children's basic needs by caretakers. The Neglect Scale (NS) is intended to provide such an instrument. The NS measures neglect of physical needs such as food, clothing, shelter, medical care; emotional needs such as affection, companionship, support; supervisory needs such as setting limits, attending to misbehavior, knowing child's whereabouts and friends; and cognitive needs such as reading to the child, and explaining things. The version of the NS described in this paper can be used in interview or questionnaire format with adolescents to describe their current situation, or for adults to describe neglect when they were growing up. Preliminary psychometric data based on a college student sample is presented for the full 20 item scale (including the four subscales) and for an eight and a four item short form. The preliminary psychometric data indicate that the NS has a high level of internal consistency reliability. There is also evidence indicating construct validity. Limitations of the NS are discussed. Modifications of the NS to enable it to be used with a variety of populations are described.

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Neglect is the form of child maltreatment that is most frequently reported to Child Protective Services (National Center on Child Abuse and Neglect, 1995). Moreover, there is evidence that neglect, especially of the child's emotional needs for love and support, may be the form of maltreatment carrying the greatest risk of serious social and psychological problems to children (Bowlby, 1982; Robins, 1966; Spitz 1959). Despite this, there is little research on neglect compared to research on physical and sexual abuse (Wolock & Horowitz, 1984).

One reason for the relative lack of research on neglect may be absence of a brief yet valid measure that can be used in epidemiological research on neglect. Such measures exist for sexual abuse (Finkelhor,

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1. Paper presented at the Fourth International Conference On Family Violence Research, Durham, NH, July 23, 1995. We are grateful to Nancy Asdigian for the statistical analysis and editing, and to her and the members of the Family Research Laboratory Seminar for valuable comments and suggestions. This paper is a publication of the Family Research Laboratory, University of New Hampshire, Durham, NH 03824. A publications list will be sent on request. The research described in this paper is part of a program to develop instruments for research on family violence. The research was funded by National Institute of Mental Health grant T32MH15161.

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1986) and physical abuse (Straus, 1979, Straus & Hamby, 1995) and their use has made important contributions. The absence of a similar brief measure of neglect may be the result of the view that measuring neglect requires an on-site investigation (as exemplified in the rating scales developed by Trocme, 1992). The same can be said for physical and sexual abuse of children, yet brief measures of these forms of maltreatment have been found to be extremely useful. The research reported in this paper is based on the assumption that the availability of a relatively brief measure of neglect will result in a similar facilitation of research. The present paper presents the findings on the first phase of a program to develop such an instrument, which we have called the Neglect Scale (NS).

CONCEPTUAL FRAMEWORK

Efforts to operationalize neglect have emphasized the importance of identifying specific subtypes of neglect in order to produce a comprehensive measure (Magura & Moses, 1986; Zuravin, 1991). Zuravin (1991) distinguished 14 subtypes of neglect and Magura and Moses (1986) 18 areas. Our approach was to identify what we believe to be four basic development needs of needs of children, and then to classify indicator or subtypes of neglect according to the developmental need that it threatened. Thus, the NS is intended to measure neglect of children's developmental needs in the following four domains:

* Physical needs such as food, clothing, shelter, medical care
* Emotional needs such as affection, companionship, support
* Supervision needs such as limit setting, attending to misbehavior, knowing child's whereabouts and friends
* Cognitive needs such as being played with or read to, assisting with school homework

The version of the NS described in this paper (Form A, see Appendix) provides a measure of neglect in each of these domains, and an overall neglect score. Form A is designed to be completed by adolescents and adults, and provides recall data about their childhood. The NS is designed to permit the same set of items to be used to create forms for use with parents or younger children, or for use as a guide to clinical investigation. These potential additonal forms are described later.

Distinguishing Neglect From Abuse

It is often difficult to distinguish neglect from abuse. We regard abuse as occurring when a parent actively engages in behavior which has a high probability of damaging the child (physically or psychologically) such as punching the child or sexual intercourse with the child. Such acts are abuse regardless of the motive, and regardless of whether the child does or does not suffer a physical or psychological injury. We regard neglect as not engaging in behavior which will meet the developmental needs of a child, such as not providing adequate food or supervision. As in the case of abuse, for purposes of the NS, failing to provide for these needs is neglect regardless of the motive or reason, and regardless of whether the child is actually damaged by the neglect.

The problem of distinguishing abuse from neglect is most acute in the case of neglect of the child's social/emotional needs. If the parent is hostile and verbally abusive, that can be very damaging (Vissing, Straus, Gelles, and Harrop, 1991), but it is an act of psychological abuse, not neglect, as conceptualized for purposes of the NS. In fact, a hypothesis worth investigating is that some attention, even if it is abusive, is less damaging than neglect. But to test that hypothesis, the NS must be focused exclusively on failure to attend to the child. With this in mind, we tried to exclude items that are mainly psychological abuse, such as "Told me I'm a worthless brat."

Focus on Acts Rather than Outcomes

It is central to the design of the NS that it is a measure of behavior by parents, not a measure of the parents motivation or the effect of neglect on the child. This characteristic of the NS permits it to be used to test hypotheses about the causes of neglect, including motives and circumstances leading to neglect, and hypotheses about the effects of neglect. If the NS were to measure neglect on the basis of whether the child suffered physical or psychological injury, it would not be possible to use such an instrument to examine the extent to which neglect results in injury because only children who were injured would be identified as having been neglected (see Straus, 1990 for further discussion of the importance of measuring acts and outcomes separately).

Clinical and Legal Identification of Neglect

The NS is primarily intended for use in research. However, it may also be useful for initial screening in clinical settings where in-depth investigation of all calses for neglect is not practical. If used for screening, a high score would suggest the need for in-depth investigation. In addition, although a high score on the NS does not necessarily indicate conditions that meet a legal definition of neglect, it may indicate conditions that pose a serious developmental risk for children. The findings reported in the section on construct validity present preliminary data that is consistent with that hypothesis.

Child's Experience Versus Parent's Behavior

The NS can be used as a measure of what a child has experienced or what a parent has done, depending on how it is administered and how the data is used. If the NS is used in research on the etiology of neglect, the data measures parental behavior. But if the same data is used to test hypotheses concerning the effect of neglect on children, the data measures the child's experience of neglect.

METHODS

Initial Item Pool

One criterion used in designing a new scale is to allow for enough items to measure the many ways in which the phenomenon can occur and to provide for a reliable measure. In general, the more items, the better. However, it is also important that a scale be brief enough for it to be practical to use. To reconcile these conflicting criteria we decided on

a goal of 20 items, consisting of five items representing each of the four domains of neglect.

To produce a 20 item test requires starting with a much larger pool of items so that psychometric techniques can be used to select the most suitable items for inclusion in the final test. We began the process of generating the pool of items by drawing on our own knowledge and experiences in the field of child abuse and neglect. This resulted in 46 items.

We then consulted previously developed measures of child maltreatment to identify items that could be modified to fit the format planned for the NS. The instruments consulted included: The EMBU (Eiseman, Gaszner, Perris, & Richter, 1990), the Parental Acceptance-Rejection Questionnaire (Rohner, 1986), the ?? (Langer, 1978), "Draft Guidelines for Psychosocial Evaluation of Suspected Psychological Maltreatment in Children and Adolescents" of the the American Professional Society on the Abuse of Children (Hart and Brassard, 1994), and the HOME scale (Caldwell & Bradley, 1984). We had also planned to draw on the instrument developed by Susan Zuravin, but it arrived after the data reported in this article had been gathered. An additional 17 items were created, making a total of 67 items.

This process resulted in a pool of 63 items. To meet the limits of the testing time available, we selected 40 items for the test development version: ten items to represent neglect of each of the four types of needs, making a total of 40 items. Forty items is double the target length, which allowed ample scope to use psychometric criteria to select the best items for inclusion in the final scale.

Sample

Sample Selection. The preliminary version of the NS was administered to students in undergraduate sociology courses in the spring of 1995. The test booklet included the pool of 40 potential NS items as well as preliminary versions of a Social Integrations scale (Ross and Straus, 1995), and the preliminary version of the revised Conflict Tactics Scales (Straus, 1979; Straus, Hamby, Boney-McCoy & Sugarman, 1995).

Altogether 377 questionnaires were distributed. The subjects were told that they could omit any question they did not wish to answer, and that they could omit the entire questionnaire by putting the blank questionnaire in the box at the front of the room when other students started handing in their questionnaire, and 15 did return blank questionnaires. Three questionnaires were omitted because the answer sheets were improperly marked. A total of 359 completed questionnaires were obtained. Because some subjects did omit an occasional question, the effective sample size varies from 340 to 357, depending on which questions and scales are included in the analysis.

Sample Characteristics. Approximately two-thirds of the sample (65.7%) were female and 95% were between the ages of 18 and 23. Approximately one-quarter were from each of the four class levels (freshman, sophomore, junior, and senior). The racial and socioeconomic status of the sample is consistent with the demographic composition of the state in which the study was done and the high cost of attending the state university. Specifically, 96% were white, 54% of the fathers and 39% of the mothers of the respondents were college educated, and 72% were from households with both biological parents.

Instructions To Subjects

Purpose of the study. The test booklet and the oral introduction explained that the purpose of the study was a pretest "to find out whether we have good questions before we actually conduct any experiments using these questions." The subjects were also told that the questions "describe a number of different behaviors and characteristics. Many of these...are about social relationships you are now in or have been in the past, although many are about you as an individual." The questions were in a test booklet and the subjects responded by darkening ovals on a machine scorable answer sheet.

Parent referent. "Parents" were described as "the person or people who raised you." The subjects were asked to indicate "...what it was like when you were living with your parents." by indicating for each item "how well it describes your life with your parents." There were four response categories: 1 = Strongly Agree, 2 = Agree, 3 = Disagree, and 4 = Strongly Disagree. The full set of explanations and instructions is given with the test in the Appendix.

To deal with step parents and other care givers, respondents were told that "Parents refers to the person or people who raised you. ... If you lived with different parents at different times, please answer for the parents you think had the most influence on your life."

Psychometric Analyses

Prior to the psychometric analyses the scoring of the "positive" items was reversed so that a high score would indicate that the subject strongly agreed that the item describes their parents' behavior. In addition, the questionnaires were scanned to read the comments about the questions that the subjects were asked to provide. The quantitative analyses can be grouped under three headings.

Item Analysis to Select Items. The steps included: (1) Inspection of frequency distributions for bimodal items. (2) Item analysis to determine the correlation of each item with the total score and the reliability of each sub-scale and the reliability of the total scale. The Reliability program in SPSS/PC was used. (3) Elimination of the half of the items least highly correlated with the total score of the respective scales, and calculation of alpha for the resulting subscales for each domain, and for the overall 20 item scale (which we will refer to as Form A20).

Factor Analyses. The items in Form A20 were analyzed using the principle components analysis with Varimax rotation of SPSS/PC. The subscales for each of the four neglect domains were also examined using this program.

Construct Validity Analyses. The data available permitted us to compute the correlations between the NS scales and a number of variables which theoretical analyses or previous empirical research suggests should be associated with a history of neglect.

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RESULTS

Selection Of items To Be Retained

The item analysis procedures described in the Method section were applied to the ten items in each of the four subscales. Fortunately, reducing the number of items to the target of five per subscale did not reduce the alpha coefficients of reliability because the loss of items was counterbalanced by the greater average item-total correlation of the remaining items. Alpha for the overall 20 item Neglect Scale was found to be .93 for this sample. Table 1 gives the items making up each of the five item subscales, and the alpha coefficients of reliability for each subscale. The alpha coefficients range from .80 to .89. Although Table 1 groups the items by subscale, the test forms actually used (see Appendix) presented the items in a random order.

(insert Table 1 about here)

Factor Analyses

Two factor analyses were performed on the 20 items. One analysis used all twenty items and found two factors. The factor loadings are given in the columns of Table 1 headed "20 item Scale." Factor I explained 45.0 of the variance. Eleven of the 20 items had loadings of .41 or greater on this factor. Examination of the factor loadings in Table 1 shows that the items in the Emotional Needs scale have the highest loading on this factor, followed by the items in the Cognitive Needs scale. Factor II explained 10.7% of the variance in these 20 items. The factor loadings in Table 1 show that the items in the Supervisory and Physical needs scales tend to have high loadings on this factor.

The same 20 items were also subjected to a factor analysis that used oblique rotation to allow for correlations among the resulting factors. The factor solution was stable across rotation methods. The oblique analysis produced two factors almost identical in nature to those described above. Factors I and II from the oblique analysis correlated .57 with each other.

We also did a preliminary factor analysis of the full set of 40 items and this revealed a similar pattern of item loadings. The first two of the seven factors to emerge in that solution (explaining a total of 46% of the item variance) were comprised of items from the Emotional/Cognitive Needs scales and the Supervisory/Physical Needs scales, respectively. The remaining five factors, which collectively accounted for only 15% of the item variance) contained between one and four items which were distributed across all four subscales.

Finally we did a simple confirmatory factor analysis of each of the four subscales by constraining the number of factors to 1. The results are shown in the Subscale Factors column of Table 1. Each subscale factor explained between 60% and 70% of the variance in the five items making up the scale. Across the four subscales, most item loadings ranged from .70 to .90. The one exception was a loading of .44 for item #106 (kept the house clean) on the Physical Needs subscale. Taken together, however, the results of these analyses support the proposition that each subscale represents a unitary dimension of neglect.

Correlation of Scales With Each Other

Since the items in the emotional and cognitive neglect scales both have high loadings on Factor I, it is not surprising that they are highly correlated with each other (.79). Similarly, the items in the physical and supervisory need scales are all highly loaded on Factor II, and these two scales are correlated .71 with each other. Although the other correlations between scales are lower, as expected on theoretical grounds, they are still substantial: Cognitive with Physical = .52, Cognitive with Supervisory = .62, Emotional with Supervisory = .61, and Emotional with Physical = .48.

Short Forms

(insert Table 2 about here)

If a study requires data on many variables and the total interviewing or testing time is limited, some of the variables must be measured using very brief instruments. To meet this need, we examined the utility of two short forms of the NS.

Form A8. This is an eight item version of Form A. The eight items were selected by choosing the two items in each subscale with the highest item-total correlation. We chose the best two from each domain in order preserve the representation of the four domains in the short form. Table 2 shows that the reliability of this scale is high (alpha = .89). We also did a factor analysis and found essentially the same two factors as with the full set of 20 items. Form A8 is highly correlated with Form A20 (.95).

Form A4. An even shorter version was created by selecting the item from each subscale with the highest item-total correlation. Despite its brevity, alpha coefficient of reliability of Form A4 was found to be .81. The factor analysis identified one factor. The column of factor loadings in Table 2 shows that all the items have high loadings on this factor. Form A4 is also highly correlated with the full scale (.92).

Construct Validity Analyses

(insert Table 3 about here)

Construct validity is judged by investigating the correlation of a test with variables with which it should be correlated if the test does measure what is intended (Cronbach, 1970). The selection of variables for the analysis of construct validity is based on what is known from previous research on the construct being measured and theoretical analysis. The data available for this sample includes a limited number of variables which meet this criterion, i.e. they are variables which we believed should be associated with a history of neglect. They were selected for the analysis by picking out from the data available for this sample all variables for which it seemed plausible to expect a correlation with a history of neglect. They are listed in the right column of Table 3.

The panel of Table 3 headed "Correlation with Form A20" gives the correlations for the overall NS scale, the four subscales with the variables selected to examine construct validity, and the panel on the right side gives the correlations of these variables with the two short form. Although almost all of the correlations are in theoretically predicted directions, most are quite low and not significant. The low and non-significant correlations may be the result of having to use extremely skewed variables. For example, only 1.7 % of the sample was brought up by

anyone except their biolcgical or adoptive mother, and only 8.1% by someone other than their biological or adoptive father. But despite the low correlations, when the differences are plotted, as in Figure 1, they show clear relationships.

(insert Figure 1 about here)

Parents Education and Income. This sample of New England university students contains almost no students from truly impoverished families. Consequently it is not surprising that parental income was not found to be associated with neglect, with the exception of cognitive neglect for women. Parents education was also found to be correlated with cognitive neglect. The fact that education and income are primarily correlated with cognitive neglect can be interpreted as evidence of what Campbell & Fisk (1959) call discriminant validity. The sample probably did not include families which were so lacking in economic resources that they could not provide food, clothing, or shelter; hence the near zero correlation of parental income with the physical neglect scale. However, relative to higher education and income families, they may have had fewer cognitive resources, and this may explain the tendency for cognitive neglect to decrease as income increases.

The pattern of correlations of parental income and education with the four neglect scales also tends to support the value of distinguishing between the four domains of neglect and of retaining those conceptual distinctions in the form of separate scales for each domain of neglect.

Physical And Psychological Assaults on Dating, Cohabiting, or Marital Partners. One of the research interests which led to developing the NS was a desire to test the theory that neglect as a child is part of the etiology of couple violence. More specifically, our theory holds that neglect increases the probability of low social attachment or integration, which in turn increases the probability of all types of deviant and criminal behavior, including assaults on a partner. The correlations in Social Integration rows of Table 3 are consistent with that theory (see also Figure 2). All show that the higher the neglect score the lower the degree of social integration. The correlations are especially high for men (part B of Table 3).

The correlations in the last row of parts B and C of Table 3 show that the higher the Neglect Scale score the greater the amount of physical violence against a partner, but only for men. The lack of association between neglect and violence against a partner among women is surprising because in this sample, as in all other studies of student couples , the female-to-partner violence rate is approximately the same as the male-to-partner rate (see the review by Sugarman & Hotaling, 1989). One possible explanation may be that violence by women against a partner may be more a marital system effect rather than the effect of inadequate socialization. This issue will be examined in future paper.

Validity of the Short Forms. The short forms, even Form A4, which has only four items, seem to have about the same construct validity as the 20 item form. The main limitations of the short forms are a much more skewed distribution than Form A20, slightly lower reliability, and loss of the ability to investigate the correlates of different domains of neglect.

Descriptive Statistics

(insert Table 4 about here)

With highly preliminary data such as were used for this study, normative tables are not appropriate. However, descriptive statistics for the overall scale, for subscales and for the two short forms are given in Table 4. The frequency distributions show that each of the subscales and short forms are extremely skewed. The total score for form A20 is much less skewed. The means show that this sample experienced somewhat more emotional and cognitive neglect than physical or supervisory neglect.

LIMITATIONS AND CAUTIONS

Skewed Distributions

It is inherent in a phenomenon such as neglect that low scores predominate. Hence the frequency distributions in Table 4 are extremely skewed. It may therefore be advisable to use a normalizing transformation before carrying out statistical analyses that assume normally distributed variables.

Multicollinearity Of Subscales

Since each subscale is strongly correlated with at least one other subscale, all four cannot be included in a regression analysis because of multicollinearity. However, there are two ways of using the subscales to examine the effect of different types of neglect. One method is to perform a series of regressions. Each regression analysis would include only pairs of subscales that are not extremely highly correlated, which is any pair except the Cognitive with the Emotional scale or the Physical with the Supervisory scale. An alternative would be to use the two factor scores. Since the two factor scores are based on an orthogonal rotation, they have a correlation of zero with each other.

Lack of Concurrent Or Predictive Validity Evidence

In the introduction, we pointed out that the NS does not directly measure the most extreme level neglect. This does not mean that the NS has no clinical utility. One way the NS may be appropriate is as a screening tool. This assumes that the higher the score on the NS, the higher the probability of clinical level neglect, and therefore a need to pursue a more in-depth clinical investigation. However, this assumption needs to be confirmed by empirical evidence that NS scores are correlated with clinical level neglect.

Another way in which the NS scores may be clinically relevant is based on the assumption that even sub-clinical neglect increases the risk of impaired social and psychological development, but not as much as more extreme neglect. A plausible case for this view can be made by analogy with findings on the effects on children of spanking and other legal modes of corporal punishment, as compared to "physical abuse." Legal corporal punishment seems to have the same adverse psychological effects as physical abuse, except that the relative risk ratios are lower (Straus, 1994).

Response Set

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One source of error for an instrument such as the NS can occur when subjects consciously or unconsciously respond in socially desirable, rather than accurate ways, or complete the test carelessly. To help prevent these problems, 20% of the items are worded positively. For the positively worded items, agreement with the item indicates parental attention rather than neglect. (The scoring of those items is reversed when the items are summed to obtain the scale scores.) The positively worded items make it more difficult to respond to all the items in the socially desirable direction. It also forces the subject to think about each item more than would be the case if they were all scored in the same direction. In future research on NS we will examine the extent to which the scores are correlated with measures of socially desirable response sets.

Recall limitations. When Form A is used to ask adults to recall events of their childhood, it probably describes only what happened from middle childhood on because recall of events as a toddler is rare, and only somewhat greater for early school age years. Although this is a serious limitation, the construct validity evidence suggests that even neglect at those ages can have serious consequences.

Biased perception. A problem which Form A shares with all measures of neglect that are not based on direct observation is that the subject may have a biased perception of the care he or she received. Subjects who did not like a parent, or who had serious conflicts with a parent, may perceive the parent as neglectful. This may be more likely to happen with the Emotional neglect and Supervisory neglect scales.

Form A does not indicate which parent was neglectful. The items in Form A are intended to identify needs of the child which have not been met, regardless of which parent was neglectful. The reasons for this aspect of Form A include:

(1) The neglect of certain needs cannot be attributed to just one of the parents when there are two parents. Meeting the needs of a child is responsibility of both parents. Thus, in many cases it would be misleading to identify only one as neglectful. This is especially likely to be the case for parent behaviors in which there is a division of labor between the parents. Take, for example, the item "Did not give me enough to eat." If, in the agreed division of labor in a family, one parent has responsibility for feeding the child and fills that responsibility, the other parent may never feed the child, but that would not be grounds for identifying the other parent as not giving the child enough to eat. Similarly, if one parent was responsible for keeping the house clean, the fact that the other did not would not necessarily indicate neglect, and in fact, the house could be clean even though the other partner did nothing.

(2) The most critical issue is whether the neglect occurred, not which parent was responsible.

(3) Two practical considerations also required a "parents jointly" version. First, many children have only one parent or caretaker. If the NS included items for both parents the test could not be scored in a comparable way for those children. In addition, for research use, we felt it was important to keep the test brief. Identifying neglect for each parent would double the length of the Neglect Scale. However, Form A can easily be modified to present the items in pairs, with one item in each pair referring to the mother and the second to the father.

MODIFICATIONS AND NEW VERSIONS OF THE NS

The Neglect Scale was designed to permit creation of parallel versions for use with adults as a recall measure, with adolescents, parents, and children to describe the current level of neglect, and for use by clinicians as a means of standardizing and quantifying the results of their investigation of a case.

Made Modifications

The NS was designed to permit modifications so that the basic set of items can be used with a variety of populations. Some of these modifications involve only minor and easily made changes. However, if the test is modified, one cannot assume that the psychometric data reported in this paper will apply to the modified version. We plan to try out each of the modifications, and in future papers we will report the effect on the psychometric characteristics of each modification.

Instructions for step parents and other care givers. An alternative to the instructions used for this paper (to answer about the parent or parents who had the most influence) would be instructions to answer for the parent the subject lived with the longest. Research is needed on the effect of these alternatives.

Referent Period For Adolescents. If Form A is completed by adolescents, the instructions to respond about "...what it was like when you were living with your parents" must be replaced by a referent period. The main alternatives are "...what it was like growing up" or "what it was like in the last 12 months" or some other recent time period such as the last six months. If "when you were growing up" is used, it probably puts the emphasis on earlier childhood.

Interview Administration. The NS can be administered as part of an interview by omitting the heading "My parents" and asking if the item applies to "your parents"

Specific Parent Focus. The NS can be modified to obtain information about each parent by presenting the items in pairs, with one item in the pair referring to "my mother" and the other to "my father" (or "your mother" and "your father" in interview format).

More Extensive Modifications

Parent Form. It is possible to create a version of the NS for completion by a parent about what has happened in a specified time period, such as the past year, past month, since the last visit of a case worker, etc. This can be used in either an interview format or questionnaire format for parents with a 7th grade or higher reading level.

In two-parent households, each can be asked to complete the NS. If two parents are present, but only is available for testing, respondents can be asked about both their own behavior and that of their partner by presenting the items in pairs. The first item in the pair would refer to the subject completing the test will begin with "I...." and the second item in the part will begin with "My [husband / wife / boyfriend / partner...."

Rating Scale. It is also possible to use the items in the NS as a means of standardizing and quantifying the results of clinical investigation. That is, a clinician can use the NS as a guide for issues to investigate and can then complete the test based on what has been learned.

Children's Version. We believe it will be possible to create a version of the NS that can be administered as an interview with children as young as six. This version might also be suitable for group administration with children age 9 to 12. The examiner could read the questions and the children could answer by marking an answer form. However, it will take careful pretesting and revision on the basis of the pretest to modify the NS for testing children. A group adminstered version would greately facilitate community epidemiological research on neglect, including evaluating programs for primary prevention of neglect.

SUMMARY AND CONCLUSIONS

This paper described the development of a standardized scale to measure neglect by parents of children's needs in four domains: physical needs, emotional needs, cognitive needs and supervisory needs. Preliminary psychometric analyses indicate a high level of reliability for the overall scale, for each of the four subscales, and for an eight item and a four item short form. There is also evidence of construct validity.

The short forms of the NS make it a practical instrument to use in research where only a very limited amount of time can be devoted to obtaining data on neglect, but at the cost of not providing separate scores for each of the four domains.

Since this paper was written, another self-report neglect scale has been published, the Child Abuse and Trauma Scale or CAT (Sanders & Becker-Lausen. 1995). The CAT is longer, which means that, in principle, the alpha reliability should be higher than the NS, but the two are virtually the same (alpha = .93 for the NS and .90 for the CAT). One reason the CTA does not have a higher reliability despite the greater number of items is that many of the items do not seem to be indicators of neglect. Some are measures of sexual abuse. Others are measures of violence between the parents, and one is a measure of help-seeking. Still others measure parental punitiveness, which in a certain sense is the extreme opposite of neglect. The fact that punitiveness, sexual abuse, and witnessing violence between the parents are harmful to children does not make them indicators of neglect.

By contrast with the CAT, the NS is based on a conceptual framework that specified four domains of children's developmental needs. Items were than selected in a ways that ensured that each these domains is represented in the scale. This approach increases the likelihood of content validity. Even the short forms of the NS were constructed in a way that ensures that the four need domains are represented. The conceptual grounding of the NS, as well as the preliminary evidence of reliability and validity provide grounds for believing that it could be useful in research on the causes and consequences of neglect, and as a before-after measure to evaluate the extent to which primary prevention and treatment programs for neglect have succeeded in improving the quality of parenting.

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ABOUT MY PARENTS

These questions are about what it was like when you were living with your parents. "Parents" refer to the person or people who raised you.

If you lived with different parents at different times, or if there is a question that applies only to part of the time when you were growing up, you should answer for the parent or the part of the time that you think had the most influence on you.

68. Which of the following "father figures" will you be answering these questions for? (mark only one category):
    1 = Father or adoptive father
    2 = Step father
    3 = Grandfather
    4 = Other male relative I lived with
    5 = Foster father
    6 = Unrelated man I lived with
    7 = There was no male who was responsible for me
    8 = I lived in an institution and will answer for that place

69. Which of the following "mother figures" will you be answering these questions for? (mark only one category):
    1 = Mother or adoptive mother
    2 = Step mother
    3 = Grandmother
    4 = Other female relative I lived with
    5 = Foster mother
    6 = Unrelated woman I lived with
    7 = There was no woman who was responsible for me
    8 = I lived in an institution and will answer for that place

For each of the following statements, decide how well it describes your life with your parents. Mark or circle a "1" for "Strongly Agree" if it is a very good description of either or both of your parents or a "4" for "Strongly Disagree" if it does not describe either of them at all. Choose "Agree" or "Disagree" if the description falls somewhere between.

1 = Strongly Agree
2 = Agree
3 = Disagree
4 = Strongly Disagree

70. took me places where I could learn things, like a zoo or library	1	2	3	4
71. paid no attention to me	1	2	3	4
72. made sure I saw a dentist when I needed one	1	2	3	4
73. did not care if what I did was right or wrong	1	2	3	4
74. left me alone without an adult when I was too young for that	1	2	3	4
75. did not hug me	1	2	3	4
76. locked me out of the house on purpose	1	2	3	4
77. ignored my feelings about things	1	2	3	4
78. did things with me just for fun	1	2	3	4

79. made sure I got enough sleep	1	2	3	4
80. were not interested in my activities or hobbies	1	2	3	4
81. did not help me with homework	1	2	3	4
82. did not give me clean clothes	1	2	3	4
83. wanted to know what I was doing when I was not at home	1	2	3	4
84. were proud when I succeeded in something	1	2	3	4
85. did not comfort me when I was upset	1	2	3	4
86. did not keep me clean	1	2	3	4
87. did not help me to do my best	1	2	3	4
88. did not make sure I went to school	1	2	3	4
89. did not care if I got into trouble in school	1	2	3	4
90. did not make sure I saw a doctor when I needed one	1	2	3	4
91. were not interested in the kind of friends I had	1	2	3	4
92. did not make sure I did my homework	1	2	3	4
93. did not give me enough to eat	1	2	3	4
94. helped me when I had trouble understanding something	1	2	3	4
95. forgot about things they were supposed to do for me	1	2	3	4
96. did not read books to me	1	2	3	4
97. did not help me when I had problems	1	2	3	4
98. did not praise me	1	2	3	4
99. did not care if I did things like shoplifting	1	2	3	4
100. did not show interest in my grades in school	1	2	3	4
101. did not tell me they loved me	1	2	3	4
102. let me know when I did something right	1	2	3	4
103. put clear limits on what I was allowed to do	1	2	3	4
104. did not give reasons for wanting me to do something	1	2	3	4
105. worried about my getting into trouble after school	1	2	3	4
106. kept the house clean	1	2	3	4
107. did not give me enough clothes to keep me warm	1	2	3	4
108. did not talk about things in the news with me	1	2	3	4
109. did not give me presents for my birthday or holidays	1	2	3	4

FIGURE XX. TYPE OF PARENT FIGURE AND LEVEL OF NEGLECT

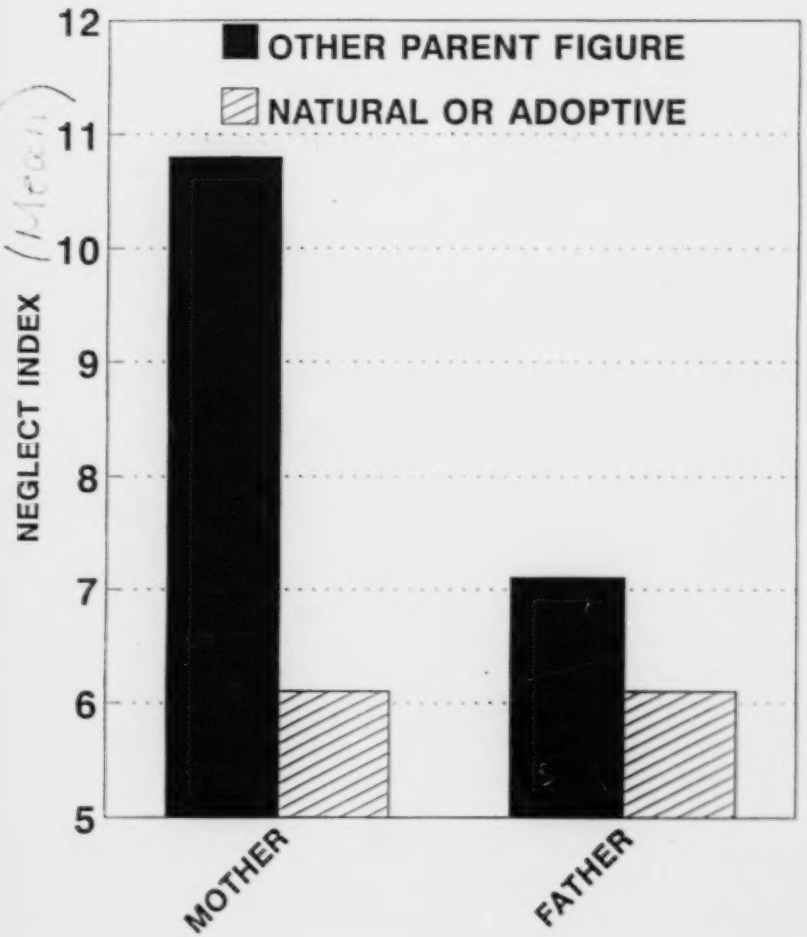

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FIGURE XY. SOCIAL INTEGRATION BY NEGLECT INDEX SCORE

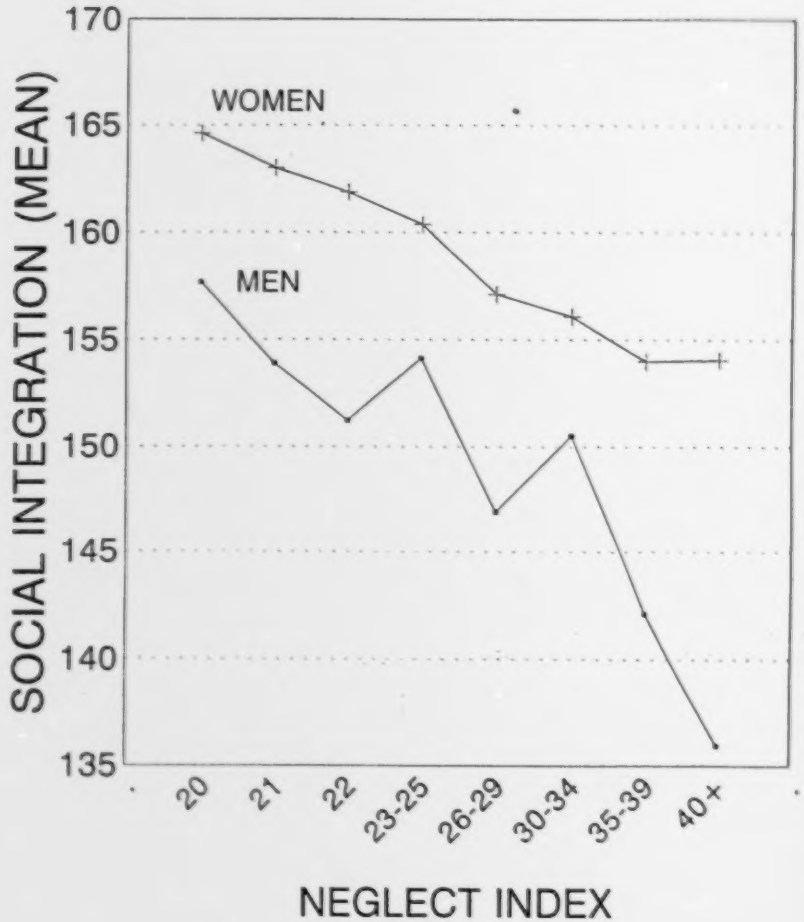

Table 1. Reliability and Factor Loadings of Subscales, Form A20

Item		20 Item Scale Factor Loading I	II
	Scale E: Emotional Needs (Alpha = .89)		
97.	did not help me when I had problems	.84	.22
85.	did not comfort me when I was upset	.81	.31
98.	did not praise me	.78	.22
101.	did not tell me they loved me	.76	.11
78.	did things with me just for fun*	.70	.21
	Scale C: Cognitive Needs (Alpha = .82)		
87.	did not help me to do my best	.69	.34
94.	helped me when I had trouble understanding something*	.65	.25
96.	did not read books to me	.65	.16
80.	were not interested in my activities or hobbies	.64	.38
81.	did not help me with homework	.64	.26
	Scale S: Supervision Needs (Alpha = .82)		
88.	did not make sure I went to school	.23	.81
89.	did not care if I got into trouble in school.	.33	.81
100.	did not care if I did things like shoplifting.	.19	.67
91.	were not interested in the kind of friends I had.	.45	.46
83.	wanted to know what I was doing when I was not at home.*	.41	.38
	Scale P: Physical Needs (Alpha = .80)		
86.	did not keep me clean.	.18	.79
90.	did not make sure I saw a doctor when I needed one.	.14	.79
107.	did not give me enough clothes to keep me warm	.25	.76
93.	did not give me enough to eat	.32	.66
106.	kept the house clean*	.17	.32

* Indicates item that was reversed when computing scores

Table 2. Neglect Scale Forms A8 and A4

Item		Factor Loading I	II
	Form A8 (Alpha = .89)		
86.	did not keep me clean	.83	.19
88.	did not make sure I went to school	.83	.25
89.	did not care if I got into trouble in school	.80	.38
107.	did not give me enough clothes to keep me warm	.75	.26
97.	did not help me when I had problems	.20	.85
85.	did not comfort me when I was upset	.32	.81
87.	did not help me to do my best	.30	.80
81.	did not help me with homework	.22	.76
	Form A4 (Alpha = .81)		
89.	did not care if I got into trouble in school	.84	--
87.	did not help me to do my best	.82	--
97.	did not help me when I had problems	.77	--
86.	did not keep me clean	.74	--

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Table 3. Correlation of Neglect Scale Forms A20, A8 and A4 with Hypothesized Antecedent or Consequence Variables

Variable	Correlation with Form A20					Corr with Short Forms	
	Total	Cognit	Emot	Phys	Super	Form A8	Form A4
A. All Subjects							
Non-Bio. Father	.13*	.12	.08	.13*	.13*	.11	.11
Non-Bio. Mother	.27**	.18**	.14*	.33**	.33**	.28**	.23**
Parent Unmarried	.17**	.23**	.13*	.11	.09	.17**	.15*
Paternal Education	-.09	-.17**	-.10	-.02	.06	-.08	-.05
Maternal Education	-.14*	-.20**	-.13*	-.02	-.05	-.12	-.08
Social Integration	-.43**	-.34**	-.35**	-.35**	-.44**	-.39**	-.40**
R-to-P Violence	.14*	.11	.06	.17*	.18**	.17*	.16*
B. Male Subjects							
Non-Bio. Father	.23	.19	.11	.24*	.20	.15	.15
Non-Bio. Mother	.49**	.33**	.29*	.52**	.57**	.46**	.40**
Parent Unmarried	.09	.15	.03	.10	.02	.10	.06
Paternal Education	-.09	-.22	-.11	.02	.05	-.07	-.005
Maternal Education	-.18	-.24*	-.13	-.03	-.11	-.15	-.08
Social Integration	-.53**	-.49**	-.44**	-.43**	-.47**	-.50**	-.53**
R-to-P Violence	.34**	.37**	.25*	.32**	.29*	.33**	.30*
C. Female Subjects							
Non-Bio. Father	.10	.10	.06	.07	.09	.11	.10
Non-Bio. Mother	.004	.01	-.02	.06	-.03	.03	.004
Parent Unmarried	.22**	.28**	.18*	.10	.13	.20*	.18*
Paternal Education	-.06	-.11	-.08	-.04	.08	-.06	-.05
Maternal Education	-.12	-.19*	-.13	-.002	-.01	-.10	-.08
Social Integration	-.30**	-.20*	-.27**	-.20*	-.34**	-.24**	-.21**
R-to-P Violence	.001	-.04	-.04	.06	.08	.05	.05

* $p < .05$. ** $p < .01$. (one-tailed tests).

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Table 4. Percent Distribution, Mean, and Standard Deviation for Neglect Scale Forms A20, A8 and A4

Score	Form A20					Short Forms	
	Total	Phys	Emot	Super	Cognit	Form A8	Form A4
	%	%	%	%	%	%	%
4							61.5
5		53.7	46.7	57.7	40.5		9.1
6		22.2	11.2	13.9	10.7		8.8
7		6.0	6.9	8.5	8.1		6.5
8		5.1	8.0	5.4	9.0	48.9	9.9
9		3.1	6.3	4.0	8.4	10.0	2.0
10		7.1	8.3	6.5	8.4	6.0	1.4
11		1.4	5.4	2.0	5.8	6.9	0
12		.6	2.0	.6	3.8	5.1	.6
13		.6	1.7	.3	2.6	4.6	.3
14		.3	1.1	.6	.6	3.1	
15			.9	.3	1.2	2.3	
16			.9	.3	.6	7.1	
17			.3		0	2.3	
18			0		.6	1.1	
19			.3			.3	
20	23.3					.9	
21	10.6					.3	
22	8.6					.3	
23	8.0					.3	
24	3.8					.6	
25	4.1						
26	4.4						
27	3.2						
28	2.7						
29	3.5						
30	0.6						
31-35	10.0						
36-40	9.1						
41-45	5.0						
46-50	2.1						
51-55	0.6						
56-60	0.3						
Mean	27.0	6.2	7.1	6.3	7.4	10.4	5.1
S.D.	8.0	1.8	2.8	2.0	2.8	3.4	1.7
Median	23.0	5.0	6.0	5.0	6.0	9.0	4.0
N	339	352	349	352	346	350	353